

Abstract

Method for monitoring a rotation rate sensor

In a method for monitoring a rotation rate sensor with a vibrational gyroscope which has a first input and a first output which form part of a primary control loop which excites the vibrational gyroscope by supplying an excitation signal to the first input at its natural frequency, where the vibrational gyroscope also has a second input and a second output which form part of a secondary control loop, where an output signal can be taken from the second output, said output signal being amplified and subjected to analog/digital conversion and then demodulated into an inphase component and a quadrature component, where the components are filtered and are then modulated again and compiled to form a driver signal which is supplied to the second input, and where a rotation rate signal is derived from the inphase component, the inphase component and the quadrature component have a test signal added to them whose frequency brings about sidebands which are situated in the driver signal outside of the second control loop's passband, in that the respective test signal which is present in the inphase component and in the quadrature component after passing through the control loop is monitored, and in that an error message is output if the amplitude is below a prescribed threshold value.

Figure 2